

Meeting notes from Meeting with Arkansas 7/30/2021

Non-OPP Attendees: Jason Norsworthy, Susie Nichols, Scott Bray, Rob Lushek, Kristin Dunbar

On July 30, 2021, OPP met with Arkansas representatives and researchers, Jason Norsworthy, Susie Nichols, Scott Bray, Rob Lushek, Kristin Dunbar, to discuss the 2021 growing season. The restrictions that Arkansas implemented in addition to the federal label were a June 30th cut-off date, glyphosate tank mixing prohibition, and additional buffers (1-mile to research plots, ½ - mile to sensitive crops, ¼-mile buffer to non-DT crops). Despite the additional buffers around research plots, Norsworthy has had dicamba damage every year and detected dicamba in the air 31 out of 38 days that he sampled. 340 out of the 485 incident calls received as of July 30 were dicamba related reports, which is in line with previous years incident numbers. However, this year the incidents appear to be areawide, rather than 1-2 fields per call. Representatives estimate that two thirds of all non-DT soybeans have been impacted (~700,000 acres). One complaint was reported from an area where the nearest known application of dicamba was at least 20 miles away. There is a 160,000-acre wildlife refuge that has been reported to have widespread injury. Arkansas is trying to determine how to conduct an investigation of that magnitude. 20-30 incidents were on ornamental or garden areas. There were also rumors of dicamba damage on organic crops, but they are often not reported due to the impact it would have on the organic status. Investigators often cannot identify the source of the dicamba, and many growers from the 2017-2019 seasons are contesting the fines with legal representation. While there have been a few cases of blatant disregard for the label, most applicators (primarily private, not commercial) try their best to follow the labelling. Applications following the cut off date have been recorded as well, including one investigation of an application 4 weeks after June 20th. By and large the buffers are not being followed, but the lack of adherence is not the driving factor of the incidents they are seeing. Arkansas confirmed that dicamba resistant pigweed is present; it is also resistant to glufosinate and 2,4-D, and Norsworthy reports a rare strain that is resistant to 9 different MOAs.

- Arkansas has a several additional restrictions. These are based on scientific research. Research on the dicamba-tolerant (DT) system began over 10 years ago. Arkansas to be proactive to make sure that DT system would be used in a safe manner in AR. However, dicamba is not the only chemical that has state restrictions in AR (e.g., 2-mile buffer to tomatoes for quinclorac). The dicamba restrictions for 2021 were:
 - June 30 cutoff date. (Previously the state wanted a May 25 based on research, but it was overturned in the AR Supreme Court)
 - Not allowed to be tank mixed with glyphosate
 - Buffers: 1-mile to research plots; ½ -mile to sensitive crops
 - ¼-mile buffer to non-DT crops
- Jason has lost research plots every year since 2017 (despite having a 1-mile buffer to University research plots)
 - He has an air sampler around research plots. Dicamba was detected in the air at concentrations that are at a level high enough to elicit a plant response. It was detected 31 out of 38 days. The only days it was not detected was days it was raining or one day after a rain.

- General nature of complaints
 - As of 7/30 there are 485 pesticide complaints in AR. Of those are 340 are alleged dicamba complaints. When investigating “alleged dicamba” calls, they are usually are determined to be related to dicamba.
 - The number is similar to previous years; however, it use to be that a caller reported 1-2 fields. This year, a caller is reporting 7-15 fields. There is mass, landscape level impacts seen.
 - Arkansas now estimates ~700,000 acres of soybean are damaged (roughly 2/3 of all non-DT soybean in the state).
 - There has been one complaint from an area where the nearest known application of dicamba would have been at least 20 miles away.
 - Damage is seen on all types of sensitive vegetation. There is a 160,000-acre wildlife refuge that has been reported to have widespread injury. Arkansas is trying to determine how to conduct an investigation of that magnitude.
 - Of the 340 incidents, 20-30 of them are residential ornamentals/gardens, although the damage is more widespread.
 - Sweet potato and peanut are also being injured. Impact will not be known until harvest, although peanut appear to tolerate the injury.
 - Heard incidents of incidents to organic growers, but they are often not reported due to the impact it would have on the organic status.
- All these incidents have occurred despite having stricter state regulations (June 30th cutoff date; glyphosate is not allowed to be tank mixed with glyphosate; 1 mile buffers to University research plots; ½ mile buffer to sensitive crops; and ¼ mile buffer to non-dicamba-tolerant soybeans).
- Investigations are hard to conduct. When it is apparent that an investigator cannot pinpoint the source, they do their best to document and map the incidents. Photographs are frequently taken.
 - The process: a call is received. It is assigned to and investigator. The investigator goes to the site and conducts an investigation. If the investigator thinks that he/she can determine the source, he/she will ask for application records to build a case. Otherwise, they will document the incident. They have a total of 30 investigators. All investigators have been trained to identify herbicide symptomology.
 - They are in the process of closing out investigations from 2017-2019. When the fines are sent out, many are contesting the findings of the investigation and are getting lawyers.
- Following the label
 - The majority are trying to follow the labels, but there are some bad apples.
 - In some cases, there have been blatant disregard for the label.
 - Arkansas had a June 30 cutoff date for all applications. They are still receiving incidents, indicating that there are some applicators not abiding to the cutoff date. One example was that a county agent took a picture of a soybean field this week with 2 ft tall pigweed that had the symptoms of dicamba injury and were dying. This application was 4 weeks after the cutoff date.
 - A grower applied Engenia to corn, but corn is not on the label. This grower was likely trying to use a better formulation than older dicamba.

- AR predominately has private applicators. Other parts of the country are predominately commercial applicators, which may have a greater compliance rate.
- Buffers – some are using glufosinate (either stacked traits or glu-tolerant varieties) to control weeds in the buffers. By and large the buffers are not being followed, but the lack of adherence is NOT the driving factor of the incidents they are seeing.
- Resistance was discussed at the States-only AAPCO meeting.
 - Dicamba resistant pigweed are common in TN.
 - Jason confirmed that dicamba resistant pigweed in AR.
 - There is glufosinate, 2,4-D & dicamba resistant pigweed in AR. This 3-way resistant pigweed are likely still able to be controlled by 2,4-D+glufosinate.
 - Jason has screened a population that was screened for resistance to a 1X rate of 11 different modes of action. Resistance was detected for 9 different modes of action. Paraquat is one of the only MOA that still works. The 9-way resistant pigweed is not common, maybe only 1 or 2 fields